

**Amendments to the Drawings:**

The attached sheets of drawings includes changes to Figures 6B, 7A and 7B. These sheets replace the original sheets including Figures 6B, 7A and 7B.

In Figure 6B, reference to SEQ ID NO: 137 has been added.

In Figure 7A, SEQ. ID. NO. 76 has been amended to SEQ. ID. NO. 46. This amendment corrects a typographical error.

In Figure 7B, a “SEQ ID NO:” column containing reference to the corresponding SEQ.ID. NOs from the sequence listing was inserted between “Truncated Peptide” and “% Identical”.

Attachment: Replacement Sheets  
Annotated Sheets Showing Changes

**REMARKS/ARGUMENTS**

**Statement for Sequence Listing**

In order to comply with the requirements of 37 C.F.R. 1.821-1.825, the Applicants are filing (1) a Sequence Listing in paper form; (2) a Sequence Listing in computer readable form in the ASCII text format; and (3) a statement (set forth below).

In accordance with the requirements of 37 C.F.R. 1.821-1.825 the undersigned verifies that the paper form and the computer readable form of the Sequence Listing submitted herewith are the same; and, that their content does not go beyond the disclosure of the international application as filed.

**Election/Restrictions**

It is noted that the Examiner maintained the restriction requirement.

Further the Examiner has stated that Claims 12 -33 are directed to non-elected inventions. These claims were previously withdrawn without prejudice, but subject to a subsequent request for rejoinder if the present claims are allowed or to a subsequent filed divisional, continuation or continuation-in-part application or request for reexamination.

The Examiner rejected claims 35 – 52 on the basis that they are directed to an invention that is independent from the invention currently elected as they comprise sequences of 38 – 41 amino acids, while the elected sequences of 40 amino acids. The election was a species election for examination purposes of a human TCAP-1 peptide, SEQ. ID. No. 69. These claims are also to human TCAP-1 peptides and it is submitted would not be undue burdensome to search. In any event, these claims have been presently withdrawn without prejudice to Applicant's right to rejoinder if the present claims are allowed or to a subsequent filed divisional, continuation or continuation-in-part application or request for reexamination and without prejudice to application of the doctrine of equivalents.

It is submitted that the invention in one aspect has identified that a particular region of Teneurin peptides, has biological activity. This was previously unknown. Although, the Applicant does not necessarily agree with the Examiner's maintenance of the restriction requirement, Applicant has provisionally elected a "group" and "species" to be examined, it is not for the purpose of limiting the Applicant's right to the full scope of its invention and is done without prejudice to the application of the "doctrine of equivalents".

**Drawings and Sequence Listing**

The Examiner in the office action noted that sequences presented in Figures 6B and 7B did not contain a sequence identification.

Pursuant to the rules, Applicant has amended the sequence listing as follows:

- (1) The sequence shown in Figure 6B was added to the Sequence Listing as new SEQ ID NO:137
  
- (2) The sequence shown in line 2 of Figure 7B was added to the Sequence Listing as new SEQ ID NO:138.

Further, references were added to the description for: SEQ ID NOS: 17 at paragraphs [0029] and [0079] and new SEQ ID NOS: 137 (at paragraph [0052] and in Figure 6B) and 138 (at paragraph [0053] and in Figure 7B)

A typographical error was corrected in paragraph [0053] of the description: reference to SEQ ID NO:30 was changed to 29. This was an obvious error.

A typographical error was corrected in Figure 7A: SEQ ID NO:76 was changed to 46.

Further, a new column was added to Figure 7B showing the SEQ ID NOS for all the sequences therein.

It is submitted that none of these amendments add new subject matter or go beyond the disclosure to the application as originally filed.

It is submitted that this traverses the Examiner's rejection to the Drawings and Sequence Listing.

**Rejection Pursuant to 35 USC § 112**

**1. Claim 9**

The Examiner rejected claim 9 pursuant to 35 U.S.C. 112 on the basis that the phrase "amidation signal sequence" is not a term known in the art and is novel. Applicant traverses this rejection on the basis, that it is submitted that this term is in fact well known in the art.

In fact the term is even used in other granted United States patents, see for example, United States Patent 6,225,049, which issued to the United States of America as represented by the Department of Health and (Washington, DC) and United States Patent 6,238,916 to Regents of the University of Minnesota (Minneapolis, MN). Both date to well before the filing date of the present application and both reference articles well before the current filing date (at least as early as 1982).

It is submitted that the phrase in itself readily defines what it refers to as a person of skill in the art understands the term "amidation" and "signal sequence" in this context. Further direction is provided for example in paragraph [0012] of the description, however, applicant should not be required to be limited to a particular amidation signal sequence.

As such, it is respectfully requested that this rejection be withdrawn.

**2. Claims 8 – 10**

The Examiner rejected claims 8 – 10 on the basis that the terms analogs, derivatives, mimetics, homologs and "biologically active anxiolytic or anxiogenic fragments thereof. The Examiner stated that the claims are not sufficiently limited to "specific molecules of known structure". Further the Examiner has asserted that it is not clear which molecules fulfill the biological activity as Figure 26, the molecule is not identified by proper SEQ. ID. No. However, the Examiner has acknowledged at

page 6 of the office action that Applicant has disclosed specific examples of “analogs, homologs, variants and functional fragments”.

Applicant traverses this rejection as on the basis that the invention does not merely identify specific sequences in isolation. As stated above, the invention in one aspect has identified that a particular region of Teneurin peptides, has biological activity. This was previously unknown. Although, the Applicant has provisionally elected a “species” to be examined, it is not for the purpose of limiting the Applicant’s right to the full scope of its invention and is done without prejudice to the application of the “doctrine of equivalents”. The base structure is provided by SEQ. ID. NO. 69 and definitions of analog, homolog, derivative are provided for example at paragraphs [0102], [0103], and [0118] and as the Examiner noted, “it is clear that Applicant is in possession of specific examples of analogs, homologs, variants and functional fragments”, which is submitted do provide support for the claims as currently presented. Further, Applicant has amended the claim 8 without prejudice (as noted below) to indicate that the fragments are at least about 38 amino acids. Support for this can be found in the application as originally filed, for instance at paragraph [0104]. With regard to the Examiner’s comment regarding Figure 26, please note that the description does state that rainbow trout TCAP-3 was used.

### **35 USC § 102**

The Examiner rejected claims 8 and 34 on the basis that they are anticipated by Hyseq, Inc., as it discloses a 1503 amino acid sequence that comprises SEQ. ID. NO. 69. Applicant traverses this rejection on the bases that the claims as currently amended do not comprise the much larger peptides. The independent claim 1 has been amended without prejudice to include a peptide “consisting essentially of SEQ. ID. NO. 69...”. As such, the claim would not comprise the much larger peptide (i.e., about 38 times larger) than the teneurin peptides of the instant invention.

All statements and amendments to the application and claims made herein are made without prejudice to Applicant’s right to reassert any cancelled or withdrawn subject matter in this or a subsequently filed divisional, continuation or continuation-in part or reexamination proceedings and without prejudice to the application of the “doctrine of equivalents”.

The Commissioner is hereby authorized to charge any fee which may be required to fully reply and enter this response, including any claim fees or extensions of time fees, or otherwise to keep the application in good standing, to our firm's Deposit Account No. 15-0633.

Should the Examiner like to discuss the matter, she is kindly requested to contact Anita Nador at 416-601-7530 at her convenience.

Respectfully submitted,  
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